



High Quantum Efficiency Photo Diodes (HQE Detectors)

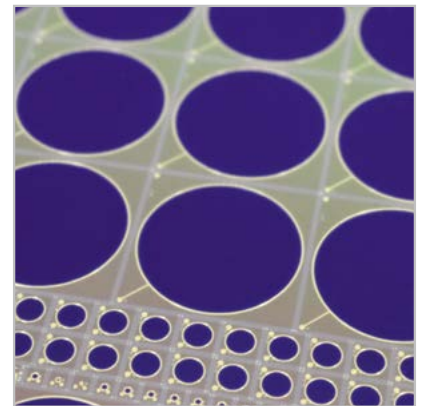
Our High Quantum Efficiency (HQE) photodiodes have been provided to a number of research organizations around the world. Customers have achieved record breaking results especially in squeezed light applications. These photodiodes are typical tailored to a specific wavelength, angle of incidence and polarization.

Features

- Quantum efficiency $\geq 99\%$ (99.5 % typically)
- Screened for microdefects
- Delivered with removable cap
- Anode and cathode isolated from ground
- For 1064 + 1550 nm mainly



Chip design





Specifications

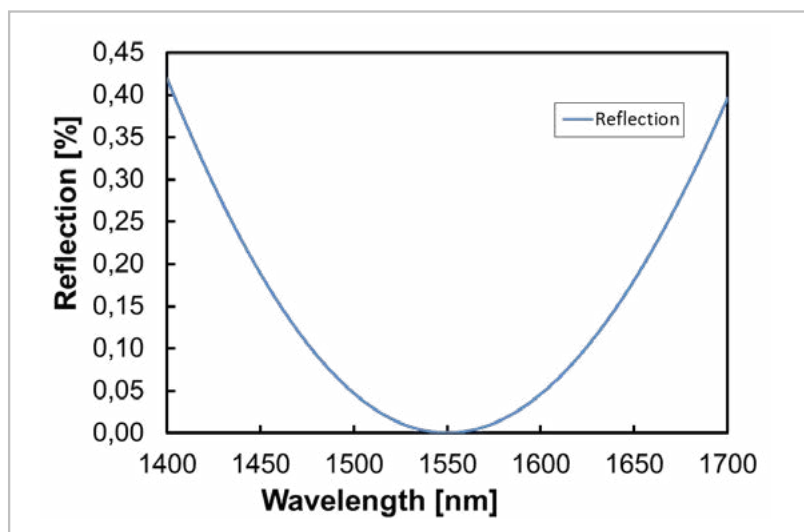
Part Number	Diameter [μm]	Dark Current @ -2.5 V	Capacity @ -2.5 V, 1 MHz	Bandwidth	Responsivity [A/W]
IGHQEX0060	60	100 pA	500 fF	1.5 GHz	1.14
IGHQEX0080	80	200 pA	1 pF	800 MHz	1.14
IGHQEX0100	100	300 pA	2 pF	400 MHz	1.14
IGHQEX0300	300	500 pA	8 pF	100 MHz	1.14
IGHQEX0500	500	800 pA	14 pF	35 MHz	1.14
IGHQEX2000	2000	25 nA	180 pF	500 kHz	1.14
IGHQEX3000	3000	60 nA	400 pF	350 kHz	1.14

AR-Coatings

- $R < 0.4\%$, $R < 0.05\%$ best effort

Wavelength [nm]	AOI [°]	Polarization
1064	20	s-pol (TE)
1064	10	p-pol (TM)
1550	20	s-pol (TE)

Other AR coatings possible

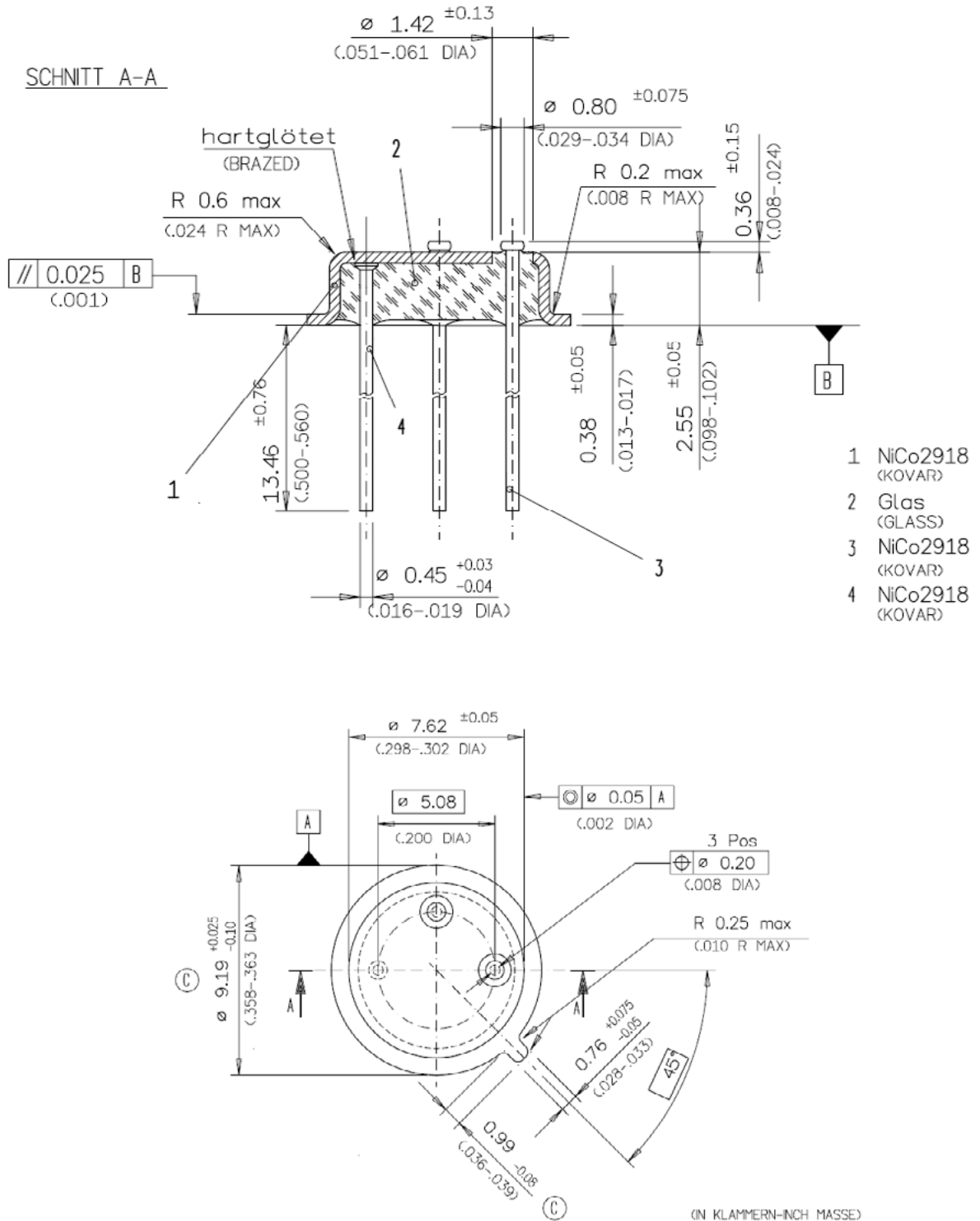


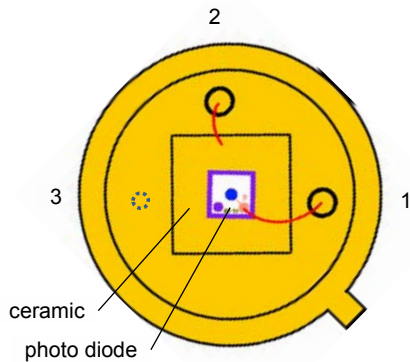
Example: 1550 nm / 20° / s-pol (TE)



Packaging

SOT9 Module: Delivered with removable cap, Anode and Cathode separated from ground





Pin connection (TOP VIEW):

PIN 1: Anode

PIN 2: Cathode

PIN 3: Case Ground

Pin connection

Maximum Ratings

Max. forward current	10 mA
Max. reverse voltage	-1.5 V
Operating temperature	-20 ... 85 °C

Product Changes

LASER COMPONENTS reserves the right to make changes to the product(s) or information contained herein without notice. No liability is assumed as a result of their use or application.

Ordering Information

Products can be ordered directly from LASER COMPONENTS or its representatives. For a complete listing of representatives, visit our website at www.lasercomponents.com